

# REQUEST FOR ACCESS OF ABANDONED APPLICATION UNDER 37 CFR 1.14

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In re Application of	
Application Number <b>08-133031</b>	Filed <b>10-13-93</b>
Group Art Unit	Examiner

Assistant Commissioner for Patents  
Washington, DC 20231

Paper No. 11

I hereby request access under 37 CFR 1.14(e)(3)(iv) to the application file record of the above-identified ABANDONED application, which is: (CHECK ONE)

- ☐ (A) referred to in United States Patent Number 5663143, column \_\_\_\_\_
- ☐ (B) referred to in an application that is open to public inspection as set forth in 37 CFR 1.11, i.e., Application No. \_\_\_\_\_, filed \_\_\_\_\_, on page \_\_\_\_\_ of paper number \_\_\_\_\_
- ☐ (C) an application that claims the benefit of the filing date of an application that is open to public inspection, i.e., Application No. \_\_\_\_\_, filed \_\_\_\_\_, or
- ☐ (D) an application in which the applicant has filed an authorization to lay open the complete application to the public.

Please direct any correspondence concerning this request to the following address:

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US005663143A

**United States Patent** [19]

Ley et al.

[11] Patent Number: **5,663,143**[45] Date of Patent: **Sep. 2, 1997**[54] **ENGINEERED HUMAN-DERIVED KUNITZ DOMAINS THAT INHIBIT HUMAN NEUTROPHIL ELASTASE**

[75] Inventors: Arthur Charles Ley, Newton, Mass.; Robert Charles Ladner, Ijamsville, Md.; Santa Kosow Guterman, Belmont, Mass.; Bruce Lindsay Roberts; William Markland, both of Milford, Mass.; Rachel Barilault Kent, Benborough, Mass.

[73] Assignee: Dynx Corp., Cambridge, Mass.

[21] Appl. No.: 358,160

[22] Filed: Dec. 16, 1994

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 133,031, Oct. 13, 1993, abandoned, and Ser. No. 9,229, Jan. 26, 1995, Pat. No. 5,483,484, which is a division of Ser. No. 884,989, Mar. 1, 1991, Pat. No. 5,223,402, which is a continuation-in-part of Ser. No. 487,083, Mar. 7, 1990, abandoned, which is a continuation-in-part of Ser. No. 260,108, Sep. 2, 1988, abandoned.

[51] Int. Cl.<sup>6</sup> A61K 37/00; A61K 38/55

[52] U.S. Cl. 514/12

[58] Field of Search 514/12

[56] **References Cited****U.S. PATENT DOCUMENTS**

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5,409,825 4/1995 Morishita et al. 514/12

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0643075 3/1995 European Pat. Off. C07K 7/10  
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**OTHER PUBLICATIONS**

Keystone Symposium on Structural and Molecular Biology of Protease Function and Inhibition, Santa Fe, New Mexico, USA, Mar. 5-12, 1994, Journal of Cellular Biochemistry Supplement O (184), 1994, 157. Markland W et al: "Selection for protease inhibitors using the bacteriophage-display technology".

Proc Natl Acad Sci USA 89 (6), 1992, 2429-2433. Roberts B L et al: "Directed Evolution of a Protein Selection of Potent Neutrophil Elastase Inhibitors Displayed on M13 Fusion Phage".

Biochemistry, vol. 29, No. 33, 21 Aug. 1990, pp. 7539-7546, Broze Jr G J et al: "Regulation of Coagulation by a Multivalent Kunitz-Type Inhibitor".

Primary Examiner—Edward J. Cain  
Attorney, Agent, or Firm—Ivor P. Cooper

[57] **ABSTRACT**

Certain Kunitz domain derived proteins which bind and inhibit human neutrophil elastase with a K<sub>i</sub> of less than 10 picomolar are described.

9 Claims, No Drawings

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